

Determine whether the equation represents a function.

1. $x^2 + y^2 = 4$

2. $y = \sqrt{x^2 - 1}$

3. $2x + 3y = 4$

4. $y^2 = x^2 - 1$

5. $y = |4 - x|$

6. $x = -8$

7. $x = -y + 5$

8. $x + y^2 = 3$

Evaluate the function for the given values.

9. $f(t) = 3t + 1$

a) $f(2)$

b) $f(x+2)$

c) $F(t) = 0$

10. $H(t) = t^2 - 2t$

a) $H(-1)$

b) $H(x-1)$

c) $H(t) = 0$

11. $V(r) = \frac{4}{3}\pi r^3$

a) $V(3)$

b) $V(x)$

c) $V(r) = 64\pi$

12. $f(x) = \begin{cases} 2x + 1, & x < 0 \\ 2x + 2, & x \geq 0 \end{cases}$

a) $f(-2)$

b) $f(0)$

c) $f(2)$

13. $f(x) = \begin{cases} x^2 - 4, & x \leq 1 \\ 1 - 2x^2, & x > 1 \end{cases}$

a) $f(-2)$

b) $f(1)$

c) $f(3)$

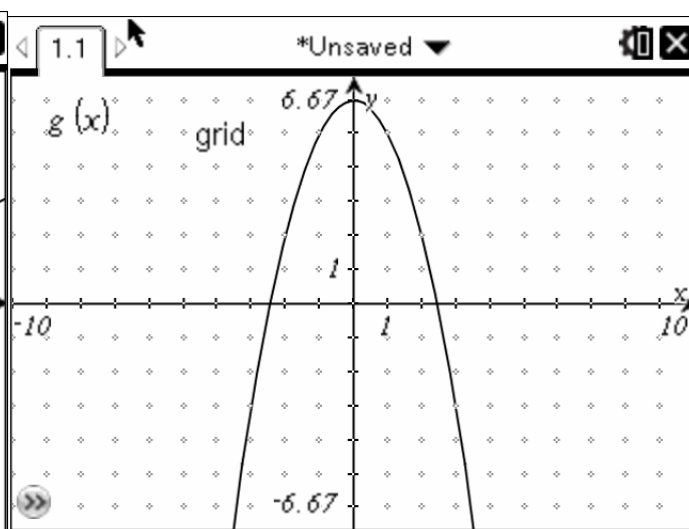
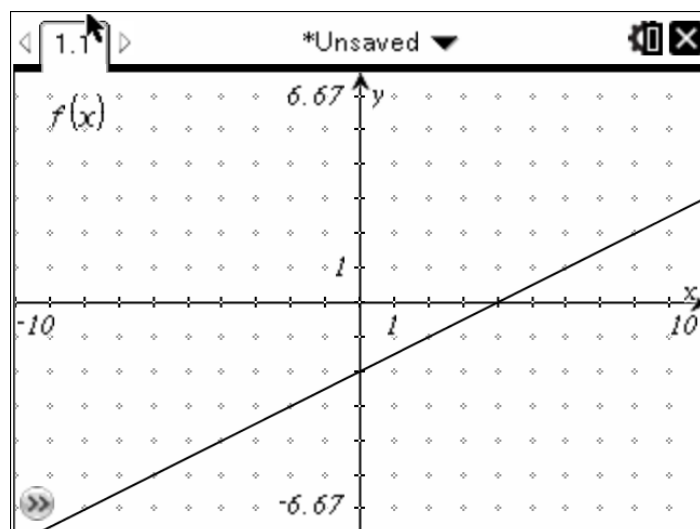
14. $f(x) = \begin{cases} x + 2, & x < 1 \\ 4, & 1 \leq x < 3 \\ x^2 + 1, & x \geq 3 \end{cases}$

a) $f(-2)$

b) $f(1)$

c) $f(4)$

Use the following graphs to answer the questions.



15. $f(2)$

16. $g(-1)$

17. $f(-6)$

18. $g(0)$

19. $f(x) = 0$

20. $g(x) = -3$

21. $f(x) = 2$

22. $g(x) = 2$